

WHAT IS CLAIMED IS:

1. A drive mechanism for a vehicle comprising:
 - a supporting platform having a first end, a second end, and a longitudinal axis perpendicular to the first and second ends;
 - an upright tube provided at a first end of the supporting platform and operatively connected with the supporting platform, and having a handle frame fitted on a top end thereof;
 - a power supply means;
 - a driving means electrically connected with the power supply means;
 - at least two driving wheels driven by the driving means, wherein the driving wheels are operatively mounted at opposite sides of the first end of the supporting platform and parallel to the longitudinal axis; and
 - at least one steering wheel, which is provided at the second end of the supporting platform.
2. The mechanism of claim 1, wherein first and second steering wheels are operatively mounted on a bottom of the second end portion of the supporting platform and parallel to the longitudinal axis.
3. The mechanism of claim 1, further comprising a steering control arrangement installed in the supporting platform, the steering control arrangement having a first end thereof fixedly connected with a steering post provided at a lower end of the upright tube, and at least one second end thereof connected with at least one steering knuckle, and wherein the steering wheel is connected to the steering knuckle, thereby the torsion of the upright tube being transmitted to the steering knuckle via the steering control arrangement to drive the steering wheel to rotate in order to enable the electric-driven vehicle to turn correspondingly.
4. The mechanism of claim 3, wherein the steering control arrangement comprises:
 - a driving rocker having a first end thereof fixedly connected with the steering post provided at the lower end of the upright tube so as to turning along with the upright tube;

a pull-rod having a first end thereof pivotally connected with a second end of the driving rocker;

an L-shaped rocker having a pivot center pivotally connected with the supporting platform, and a first end thereof pivotally connected with a second end of the pull-rod;

at least one link rod having a first end thereof pivotally connected with a second end of the L-shaped rocker; and

at least one driven rocker having a first end thereof pivotally connected with a second end of the at least one link rod, and a second end thereof fixedly connected with a steering knuckle so as to drive the steering knuckle to rotate.

5. The mechanism of claim 1, wherein the handle frame is extendably fitted on the top end of the upright tube, and able to be positioned or re-positioned by using a quick clamping device provided on the upright tube.

6. The mechanism of claim 5, wherein the lower end of the upright tube is pivotally connected with the supporting platform, thereby the upright tube is selectively collapsible towards the second end of the supporting platform.

7. The mechanism of claim 1, wherein the power supply means is provided on a bottom of the supporting platform.

8. The mechanism of claim 1, wherein the driving means is installed in the driving wheel in order to drive the driving wheel to rotate.

9. The mechanism of claim 8, wherein the driving means includes a left electric hub and a right electric hub, which are respectively installed in middle of the two driving wheels.

10. The mechanism of claim 9, wherein a controller provided under the supporting platform includes a left controller and a right controller, which are electrically connected with the left electric hub and the right electric hub, respectively, and wherein the left controller and the right controller are electrically connected with the power supply means via a relay unit.

11. The mechanism of claim 10, wherein a reverse switch is provided on the handle frame, a first end of the reverse switch is electrically connected to the power supply

means, and a second end of the reverse switch is electrically connected to the relay unit, thereby the electric-driven vehicle is able to be reversed.

12. The mechanism of claim 10, wherein a high-low-speed switch is provided on the handle frame and electrically connected with the left electric hub and the right electric hub so as to regulate the speed of the left electric hub and the right electric hub.

13. The mechanism of claim 10, wherein a braking grip and an accelerator handlebar are provided on the handle frame and electrically connected with the left controller and the right controller.

14. The mechanism of claim 13, wherein the braking grip has a first end thereof pivotally connected with a fixing seat formed on one end of the handle frame via a pivot pin, and has a notch defined therein proximal to the first end thereof.

15. The mechanism of claim 14, wherein a brake locking mechanism is provided on the handle frame, the brake locking mechanism comprises:

a locking member having a first end thereof pivotally connected to the fixing seat via a pivot which is disposed at an interval from the pivot pin of the braking grip, the locking member is provided with a spindle corresponding to the shape of the notch; and

a resilient member, which is mounted around the pivot of the locking member and having a first end thereof connected with the fixing seat and a second thereof biased against the locking member, thereby the braking grip is retained at a normal un-braking original position by the resilience of the resilient member.

16. The mechanism of claim 15, wherein the resilient member is a resilient coil spring.

17. The mechanism of claim 10, wherein the steering wheels include a first steering wheel and a second steering wheel, which are respectively connected with a left steering sensor and a right steering sensor which are electrically connected with the left controller and the right controller.

18. The mechanism of claim 1, wherein a front side of the handle frame is provided with a headlamp, which is electrically connected with the power supply means via a lamp switch.

19. The mechanism of claim 1, wherein the front side of the handle frame is provided with direction signal lamps, which are electrically connected with the power supply means via switches of the direction signal lamps.

20. The mechanism of claim 1, wherein the second end of the supporting platform is provided with back lamps and braking indicator lamps, which are electrically connected with the power supply means via the lamp switch and the braking grip.

21. The mechanism of claim 1, wherein a panel is provided on the handle frame and electrically connected with the power supply means in order to display the speed of the electric-driven vehicle and the voltage of the power supply means.

22. The mechanism of claim 21, wherein a plurality of illuminant means for indication of the status of the electric-driven vehicle is provided on the panel and electrically connected with the power supply means.

23. The mechanism of claim 22, wherein the illuminant means includes five LEDs, a first LED for indication of the power supply, a second LED for indication of reverse movement of the vehicle, a third LED for indication of low speed running, a fourth LED for indication of lamps, and a fifth LED for indication of braking and power interrupted status or brake locking status.

24. The mechanism of claim 1, wherein the steering wheel is further provided with a contracting brake or a tray brake in order to perform a whole vehicle braking.

25. The mechanism of claim 9, wherein regenerated braking of the electric hub is performed by an electrical control system.

26. The mechanism of claim 1, wherein the supporting platform comprises:
a first portion comprising sleeves for mounting driving wheels and a first side;
and

a second portion comprising knuckle pivots for mounting steering wheels and
a second side corresponding to the first side, wherein the first side of the first portion and the second side of the second portion are connected via a connecting member, and
wherein at least one of the first side and the second side rotate around the connecting member.

27. The mechanism of claim 26, wherein the connecting member comprises an axis being provided on the middle of and perpendicular to the first side of the first portion and being in the same plane with the first portion, and wherein the second side of the second portion is provided with a hole on the position corresponding to the axis, and the axis can go through the hole.

28. The mechanism of claim 26, wherein the connecting member comprises an axis being provided on the middle of and perpendicular to the second side of the second portion and being in the same plane with the second portion, and wherein the first side of the first portion is provided with a hole on the position corresponding to the axis, and wherein the axis goes through the hole.

29. The mechanism of claim 27, wherein an end of the axis distant from the fixed end is provided with screw thread for engaging with a nut, preventing the disengagement of the first portion and the second portion.

30. The mechanism of claim 27, wherein the second portion is provided with position limit members, and the position limit members limit the position of the second portion when the second portion rotates around the axis.

31. The mechanism of claim 30, wherein the position limit members are formed as a whole with the second portion.

32. The mechanism of claim 28, wherein the first portion is provided with position limit members, and the position limit members limit the position of the first portion when the first portion rotates around the axis.

33. The mechanism of claim 32, wherein the position limit members are formed as a whole with the first portion.

34. The mechanism of claim 30, wherein the position limit members define the limit angles which the first side of the first portion or the second side of the second portion rotates around the axis.

35. The mechanism of claim 26, wherein the connecting member is formed as a whole with the first side of the first portion or the second side of the second portion.